

REMARKS

Claims 15 to 27 are pending and being considered in the present application. Claims 15 and 23 have been amended. In view of the following, it is respectfully submitted that all of the presently pending and considered claims are allowable, and reconsideration is respectfully requested.

Applicants note with appreciation the acknowledgment of the claim for foreign priority and the indication that certified copies of the priority documents have been received.

Applicants thank the Examiner for considering the previously filed Information Disclosure Statement, PTO-1449 paper and cited reference(s).

Claim 23 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because the antecedent basis for the term “the wave correction mass” recited in claim 23 is missing. In this regard, claim 23 has been rewritten in accordance with the suggestion of the Examiner, and the amendment is believed to be self-explanatory. It is respectfully submitted that claim 23, as presented, is clear and definite. Accordingly, withdrawal of the indefiniteness rejection is respectfully requested.

Claims 15, 17, 24, 26 and 27 were rejected under 35 U.S.C. § 102(b) as anticipated by PCT Publication No. WO 02/12698 or U.S. Patent No. 6,820,473 (“the Wagner references”).

Amended claim 15 relates to a method for monitoring an internal combustion engine, in which fuel is injected directly into at least one combustion chamber in at least two partial injections, using at least one final controlling element, the method including determining an actual torque of the internal combustion engine based on at least one injected fuel mass or one fuel mass to be injected, comparing this actual torque to a permitted torque of the internal combustion engine, and initiating an error response if the actual torque is at a predefined ratio to the permitted torque. Amended claim 15 recites that for each partial injection, a fuel volume acting to generate a torque is determined, a total fuel volume of a combustion cycle is ascertained from a sum of each fuel volume acting to generate the torque, and the total fuel volume of the combustion cycle is taken into account for determining the

fuel mass that is to be injected or that has been injected. Hence, the presently claimed subject matter relates to a method in which fuel is injected in at least two partial injections into at least one combustion chamber, using a control element. An actual torque of the internal combustion engine, which is compared to a permitted torque of the internal combustion engine, is determined on the basis of the amount of fuel injected. If these two variables deviate from one another, an error is detected.

The Wagner references relate to a procedure in which, for each partial injection, the partial torque generated in response to the partial injection is ascertained. The partial torques of the individual partial injections are then summed up to obtain a total torque. This is clearly contrary to the presently claimed subject matter, which provides that the **fuel volume** acting to generate a torque **is determined** for each partial injection **and subsequently summed up**. In the present invention, the mass of fuel is determined from this total volume of fuel, instead of the torques of the individual partial injections that are summed in the Wagner references.

Accordingly, for at least these reasons, it is respectfully submitted that Wagner references do not anticipate claim 15, and therefore claim 15 is allowable. Claims 17, 24, 26 and 27 depend either directly or indirectly from claim 15, and therefore these dependent claims are not anticipated by the Wagner references for at least the same reasons as those presented in connection with claim 15. Withdrawal of the anticipation rejections is therefore respectfully requested.

Claims 16, 18, and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over the Wagner references in view of U.S. Patent No. 6,386,180 ("Gerhardt").

It is respectfully submitted that even if it were proper to modify the primary Wagner references as suggested by the Office Action (which is not conceded), the secondary Gerhardt reference does not cure the critical deficiencies of the Wagner references (as explained above) with respect to claim 15, from which claims 16, 18 and 25 ultimately depend. Accordingly, claims 16, 18 and 25 are allowable over the combination of the Wagner references and the Gerhardt reference. Withdrawal of this rejection is therefore respectfully requested.

Claims 20, 22 and 23 were rejected under 35 U.S.C. § 103(a) as unpatentable over the Wagner references in view of Gerhardt, and further in view of U.S. Patent No. 6,298,830 ("Kono").

It is respectfully submitted that even if it were proper to modify the primary Wagner references as suggested by the Office Action (which is not conceded), the secondary Gerhardt and Kono references do not cure the critical deficiencies of the Wagner references (as explained above) with respect to claim 15, from which claims 20, 22 and 23 ultimately depend. Accordingly, claims 20, 22 and 23 are allowable over the combination of Wagner, Gerhardt and Kono references. Withdrawal of this rejection is therefore respectfully requested.

Claims 19 and 21 were rejected under 35 U.S.C. § 103(a) as unpatentable over the Wagner references in view of in view of U.S. Patent No. 4,594,979 ("Yasuhara").


It is respectfully submitted that even if it were proper to modify the primary Wagner references as suggested by the Office Action (which is not conceded), the secondary Yasuhara reference does not cure the critical deficiencies of the Wagner references (as explained above) with respect to claim 15, from which claims 19 and 21 ultimately depend. Accordingly, claims 19 and 21 are allowable over the combination of the Wagner reference and the Yasuhara reference. Withdrawal of this rejection is therefore respectfully requested.

CONCLUSION

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is respectfully requested.

Respectfully submitted,

KENYON & KENYON LLP

 (R. No. 36,197)

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By: JING LEE for Gerard Messina

Gerard A. Messina (Reg. No. 35,952)

One Broadway

New York, New York 10004

(212) 425-7200

CUSTOMER NO. 26646